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Snowpack's Statewide Water Content Is below Average

SACRAMENTO – Today's Department of Water Resources (DWR) manual snow survey at Phillips Station in the Sierra Nevada range found a snow water equivalence of 6 inches, which is 5.3 inches less than the average early-January snow water equivalence of 11.3 inches as measured at Phillips since 1964.

Snow water equivalence is the depth of water that theoretically would result if the entire snowpack melted instantaneously. That measurement is more important than depth in evaluating the status of the snowpack. (Measurements of snow water equivalence and depth at Phillips and other nearby snow courses are posted in the table below.)

More telling than a survey at a single location, however, are DWR's electronic readings today from 105 stations scattered throughout the Sierra Nevada. Measurements indicate the water content of the northern Sierra snowpack is 7.2 inches, 68 percent of the multi-decade average for the date. The central and southern Sierra readings are 7.4 inches (65 percent of average) and 6.6 inches (73 percent of average) respectively. Statewide, the snowpack holds 7.2 inches of water equivalent, or 70 percent of the January 3 average.

January and February are two of California's three historically wettest months, which means the readings taken today at Phillips during the winter's first media-oriented snow survey are a key starting point of information but don't shed much light on how wet the wet season ultimately will be.

The Phillips snow course, which is near the intersection of Highway 50 and Sierra-at-Tahoe Road, is one of hundreds that will be surveyed manually throughout the winter. Manual measurements augment the electronic readings from about 100 snow pillows in the Sierra Nevada that provide a current snapshot of the water content in the snowpack.

Frank Gehrke, chief of the California Cooperative Snow Surveys Program, conducted today's survey at Phillips and reported that a water content there of only 53 percent of the early-January average "seems a little gloomy."

"Keep in mind," he continued, "we had pretty much bare ground here about a week ago, with a few patches of snow. Most of the snow we measured today came down in the last couple days and is continuing to come down."

Gehrke said forecasters predict a series of wet cold storms stretching into next week. "That's going to bolster the snowpack," he said. "I can see us being potentially at average once that series of storms moves through. I think it's a very encouraging start to the winter, and certainly we've had other winters when (Phillips) has been basically a bare field."

State Climatologist Mike Anderson said about half of California's annual rainfall occurs in December, January and February and about two-thirds of the annual total arrives during December through March. Total precipitation so far this water year, which began October 1, has been above average, but warm temperatures during storm events have tended to cause precipitation to fall as rain rather than snow in many mountain locations.

"We still have three historically wet months ahead of us," Anderson said, "so there's still time for the snowpack to build and improve before it begins to melt, which usually starts happening around April 1."

Acting DWR Director Bill Croyle said above-average precipitation since the start of Water Year 2017 in October added significantly to storage in 154 reservoirs tracked by the Department. Croyle said DWR has estimated total storage at the end of December at 21.5 million acre-feet (MAF), 98 percent of the reservoirs' historical average of 21.9 MAF on December 31.

Lake Shasta, California's largest surface reservoir, now holds 118 percent of its historical average on today's date. One year ago, Shasta's storage was just 50 percent of its average. Similarly, Lake Oroville, the State Water Project's largest reservoir, holds much more water today than a year ago -- 91 percent of its historical average compared to just 47 percent one year ago.

"Precipitation and storage are doing quite well compared to the past 5 years of historic drought conditions," Croyle said, "and that makes us cautiously optimistic about water conditions, although some areas in California are still hit hard by the drought and require a response. The snowpack is clearly lagging below its early-January average, but we have many more snow courses to measure this winter before we'll know whether this water year has had a significant positive effect on the drought."

DWR conducts five media-oriented snow surveys each winter – near the first of January, February, March, April and May – at the Phillips Station plot in the Sierra Nevada range just off Highway 50 near Sierra-at-Tahoe Road 90 miles east of Sacramento.

On average, the snowpack supplies about 30 percent of California's water needs as it melts in the spring and early summer. The greater the snowpack water content, the greater the likelihood California's reservoirs will receive ample runoff as the snowpack melts to meet the state's water demand in the summer and fall.

Governor Edmund G. Brown Jr. declared a <u>drought State of Emergency</u> on January 17, 2014 and directed State officials to take all necessary actions to prepare for water shortages. California has experienced five consecutive water years of drought conditions and is three months into a possible sixth consecutive year.

Conservation – the wise, sparing use of water – remains California's most reliable drought management tool. Each individual act of conservation, such as letting the lawn go brown or replacing a washer in a faucet to stop a leak, makes a difference over time. Californians can learn ways to save water every day by visiting SaveOurWater.com.

Video and photographs of today's Phillips survey will be posted <u>here</u> after processing.

Electronic snowpack readings are available on the Internet at: http://cdec.water.ca.gov/cdecapp/snowapp/sweq.action For earlier readings, click the calendar icon below the map, select a date, then Refresh Data.

Water Year 2017's precipitation can be found at the following link; look in the right-hand column for the Northern Sierra 8-station index for updated rainfall readings in the critical northern portion of the state, as well as the San Joaquin 5-station and Tulare Basin 6-station links: http://cdec.water.ca.gov/snow_rain.html

For a broader snapshot of current and historical weather conditions, see DWR's "Water Conditions" and "Drought" pages:

Water Conditions Page:

http://www.water.ca.gov/waterconditions/waterconditions.cfm

Drought Page:

http://www.water.ca.gov/waterconditions/index.cfm

Everyday water conservation tips at Save Our Water:

http://saveourwater.com



Visit http://drought.ca.gov to learn how California is dealing with the drought.

